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cont

that it is capable of performing high resolution recording. In particular, the recording head using an electrothermal converter as the energy generating means is advantageous in that it can be easily reduced in size, that it can sufficiently utilize the advantages of the IC technology and the microprocessing technology, which have recently advanced and been improved remarkably in the field of semiconductor technology, that it easily allows high density mounting, and that it can be produced at low cost.--

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IN THE CLAIMS:

Please cancel Claims 1-12, 29-36 and 41-44 without prejudice to or disclaimer of the subject matter recited therein.

Please amend Claims 13, 16, 18, 19, 21, 22, 24, 25, 27, 28 and 37-40 to read as follows. A marked-up copy of Claims 13, 16, 18, 19, 21, 22, 24, 25, 27, 28 and 37-40, showing the changes made thereto, is attached. Note that all the claims currently pending in this application, including those not presently being amended, have been reproduced below for the Examiner's convenience.

Claims 1-12 cancelled herein.

13. (Amended) A method for producing a scale provided coaxially and integrally with a conveying roller and adapted to detect a conveyance rotation angle, the method comprising the steps of:

integrating the conveying roller with a conveyance angle detection pattern writing member coaxially mounted with the conveying roller; and

holding a recording medium conveyance outer peripheral portion of the conveying roller integrated with the conveyance angle detection pattern writing member, and performing rotation angle allotment on the conveying roller to form a scale for detecting the conveyance rotation angle.

14. A method according to Claim 13, wherein the scale is a magnetic scale formed by magnetically effecting conveyance rotation angle allotment.

15. A method according to Claim 13 or 14, wherein the writing member is integrally provided with a conveying roller drive transmitting means.

16. (Amended) A method for producing a scale for detecting a conveyance rotation angle of a conveying roller provided in a recording apparatus adapted to perform recording on a recording medium conveyed while being held between the conveying roller and a driven roller by using recording means, the method comprising the steps of:

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integrating the conveying roller with a conveyance angle detection pattern writing member coaxially mounted with the conveying roller; and

holding a recording medium conveyance outer peripheral portion of the conveying roller integrated with the conveyance angle detection pattern writing member, and performing rotation angle allotment on the conveying roller to form a scale for detecting the conveyance rotation angle.

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17. A method according to Claim 16, wherein the scale is a magnetic scale formed by magnetically performing conveyance angle allotment.

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18. (Amended) A method according to Claim 16 or 17, wherein the recording apparatus is an ink-jet recording apparatus which forms an image on the recording medium by discharging ink onto the recording medium.

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19. (Amended) A method according to Claim 18, wherein the ink-jet recording apparatus is provided with an electrothermal converter for generating energy for discharging the ink.

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20. A method according to Claim 16 or 17, wherein the writing member is integrally provided with a conveying roller drive transmitting means.

~~9~~  
~~21.~~ (Amended) A method according to Claim ~~20~~<sup>9</sup>, wherein the recording apparatus is an ink-jet recording apparatus which forms an image on the recording medium by discharging ink onto the recording medium.

~~10~~  
~~22.~~ (Amended) A method according to Claim ~~21~~<sup>9</sup>, wherein the ink-jet recording apparatus is provided with an electrothermal converter for generating energy for discharging the ink.

~~11~~  
~~23.~~ A method according to Claim ~~16~~<sup>4</sup> or ~~17~~<sup>5</sup>, wherein, in the recording apparatus, a detecting device for detecting angle information provided on the scale is provided so as to be of the same phase as the driven roller with respect to the axis of the conveyance outer peripheral portion of the conveying roller.

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~~24.~~ (Amended) A method according to Claim ~~23~~<sup>11</sup>, wherein the recording apparatus is an ink-jet recording apparatus which forms an image on the recording medium by discharging ink onto the recording medium.

~~13~~  
~~25.~~ (Amended) A method according to Claim ~~24~~<sup>12</sup>, wherein the ink-jet recording apparatus is provided with an electrothermal converter which generates energy for discharging the ink.

~~14~~ 26. A method according to Claim ~~16~~ or ~~17~~, wherein, in the recording apparatus, a detecting device for detecting angle information provided on the scale is elastically biased against the scale and arranged so as to be at a fixed distance from the recording means with respect to the recording medium conveying direction.

~~15~~ 27. (Amended) A method according to Claim ~~26~~, wherein the recording apparatus is an ink-jet recording apparatus which forms an image on the recording medium by discharging ink onto the recording medium.

~~16~~ 28. (Amended) A method according to Claim ~~27~~, wherein the ink-jet recording apparatus is provided with an electrothermal converter which generates energy for discharging the ink.

[Claims 29-36 cancelled herein.]

~~17~~ 37. (Amended) A recording apparatus comprising conveying means having a conveying roller and a pinch roller in close contact with said conveying roller, and detecting means for detecting a rotational angle of said conveying means, wherein a recording medium conveyed by said conveying means is recorded by recording means, said recording apparatus being manufactured by the steps of:

integrating the conveying roller with a conveyance angle detection pattern writing member coaxially mounted with the conveying roller; and

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holding a recording medium conveyance outer peripheral portion of the conveying roller integrated with the conveyance angle detection pattern writing member, and performing rotation angle allotment on the conveying roller to form a scale for detecting the conveyance rotation angle.

~~18~~ 38. (Amended) A recording apparatus according to claim ~~37~~<sup>17</sup>, wherein said detecting means is biased to a magnetic scale of said conveying means to maintain a distance to said conveying means constant.

~~19~~ 39. (Amended) A recording apparatus according to claim ~~37~~<sup>17</sup>, wherein said recording apparatus is an ink jet recording apparatus for discharging ink on the recording medium to form an image.

~~20~~ 40. (Amended) A recording apparatus according to claim ~~39~~<sup>19</sup>, wherein said ink jet recording apparatus comprises an electrothermal converting member for generating energy utilized to discharge the ink.

Claims 41-44 cancelled herein.